

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1-4, 7-18 and 21-46 are currently being amended.

Claims 47-49 are being added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-49 are now pending in this application.

Allowable Subject Matter

Applicant appreciates the allowance of claims 40-43 and 46 and the indication of allowable subject matter in claims 9-10, 23-24, 31 and 33-36.

With respect to claims 40-43 and 46, Applicant has amended these claims to correct minor informalities. Claims 40-43 and 46 remain in allowable condition.

With respect to claims 9-10, 23-24 and 31, Applicant believes the allowable subject matter does not require the inclusion of the intervening claims. Accordingly, Applicant has added new claim 47 to recite the subject matter of claim 9 in independent form. Similarly, Applicant has added new claim 48 to recite the subject matter of claim 23 in independent form, and Applicant has added new claim 49 to recite the subject matter of claim 31 in independent form.

With respect to claims 33-36, as suggested by the Examiner, Applicant has rewritten the claims in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections

Claims 1-8, 11-22, 25-28 and 37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Admitted Prior Art in view of U.S. Patent No. 5,951,634 to Stibon et al. (hereinafter “Stibon”). Applicant respectfully traverses the rejection of claims 1-8, 11-22, 25-28 and 37, as amended.

The present invention, as recited in amended independent claims 1, 15, 37, 38, 39, 44 and 45, is directed to methods and systems for load balancing in a system having a plurality of computers and a plurality of terminals. As an example, the disclosed load balancing methods estimate the load states of the plurality of computers and determine estimated elongation rates based on the load states. As defined in the specification at page 10, lines 22-25, and now recited explicitly in the amended claims 1, 15, 37, 38, 39, 44 and 45, the estimated elongation rates are estimates of a ratio of a job processing response time, including queuing time, to a total processing time. The estimated elongation rate of each of the plurality of computers is used to calculate load indexes, which are used to determine the load distribution among the computers.

The cited reference fails to teach or suggest the determination of an estimated elongation rate, as recited in amended independent claims 1, 15, 37, 38, 39, 44 and 45. Stibon discloses an open computing system in which a plurality of servers each include load calculators. The load calculators determine the progress rate of the load on each server. The progress rate is the slope of the load line of the current load on each computer. Stibon does not disclose the use of an elongation rate, as recited in the amended claims.

Further, as described in the specification, the elongation rate, as a basic performance index provides improved load balancing among computers even in the short term, and the mean and variation of response times can be kept small. The system of Stibon, on the other hand, requires a slope to be calculated over time. Thus, in order to accurately determine load distribution, the load states must be determined over an extended period.

Thus, independent claims 1, 15, 37, 38, 39, 44 and 45, as amended, are patentable over the cited references. Claims 7-14, 16-32 depend, either directly or indirectly, from one

of the patentable independent claims and are, therefore, patentable for at least that reason, as well as for additional patentable features when those claims are considered as a whole.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Applicant respectfully requests that the Examiner acknowledge receipt of the IDS filed on November 28, 2000.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 9-30-04

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**Amendments to the Drawings:**

Please substitute the attached 9 sheets (Figs. 1, 2, 3, 4A, 4B, 5, 6, 7, 8 and 9) of formal drawings for the informal drawings originally filed with the application. A separate Transmittal of Formal Drawings is submitted.

The drawing sheet or sheets attached in connection with the above-identified application containing Figure(s) 1, 2, 3, 4A, 4B, 5, 6, 7, 8 and 9 are being presented as a new formal drawing sheet or sheets to be substituted for the previously submitted drawing sheet or sheets.